



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,018	12/08/2000	Magnus Homann	040020-328	1644

7590 07/13/2004
Ronald L. Grudziecki
Burns, Doane, Swecker & Mathis, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
----------	--------------

2661

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,018

Applicant(s)

HOMANN, MAGNUS

Examiner

Robert W Wilson

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date \$ & 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2661

DETAILED ACTION

1.0 The application of Magnus Homann entitled "DUAL SPEED END STATION AND SYSTEM" filed on 12/08/2000 with priority based upon SWEDEN 990452808 dated 12/10/1999 was examined. Claims 1-15 are pending.

Claim Rejections - 35 USC § 103

2.0 **Claims 1-3, & 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et. al. (U.S. Patent No.; 6,483,849) in view of Egbert (U.S. Patent No.; 6,181,702 B1)

Referring to **Claim 1**, Bray teaches: An Ethernet system (Figs 1-2) comprising an Ethernet switch, having a number of first ports (I) being adapted to communicate with a first speed and a number of second ports (h) being adapted to operate at a second higher speed (16 per Fig 1 has speeds which adapt to 10Mb/s or 1st speed and 100 Mb/s or 2nd speed), the switching device defining a number of Ethernet segments over each respective port (5 per Fig 1 defines a 10 Mb/s and 100 Mb/s segments), each port being adapted to route incoming messages according to their destination address (switch per Fig 10), while storing the departure addresses in a routing table (Switch per Fig 10), the switching device comprising a memory buffer for momentarily storing messages being communicated over the ports (Switch per Fig 10)

A plurality of end stations (ES) (26' & 30'), each end station having at least one Ethernet transceiver (T1;T2) and being adapted to be coupled to one of either said first and second ports (I,h) (26" and 30' have 53, 54, 56, & 58 per Fig 2 in order to communicate with 16 per Fig 1); respectively over media paths (MP) (10 Mb/s or 100 mb/s media paths per Fig 2) characterized in that the system (Figs 1-2) comprises an infrastructure (IFR, IFR1, IFR2) 64 per Fig 2 or infrastructure), comprising at lease one media section group (MSG) (10 Mb/s per Fig 2 or media section group); and a second media section (MSN, h) (100 Mb/s per Fig 2 or second media section), the first and second media sections, comprising a number of media paths having terminals point in both ends (Fig 2);

The infrastructure (IFR, IFR1, IFR2) being arranged in such a manner that all media sections (MSN, h, I) of the media section group (MSG) are occupied when an end station is coupled to the respective media section group (MSG) (The link partner 50 per Fig 2 is connected to the media for 10 Mb/s and 100 Mb/s or infrastructure) and that one media section (MSN, I) is reserved for transceiver operating at a first speed or first ports (I) while the other media section (MSN, h) is reserved for transceivers operating at a second speed or second ports (Fig 2)

Bray does not expressly call for: routing incoming messages according to their destination address while storing the departure addresses in a routing table the switching device comprising

Art Unit: 2661

a memory buffer for momentarily storing messages being communicated over the ports but teaches a switch per Fig 1.

Egbert (U.S. Patent No.; 6,181,702) teaches: routing incoming messages according to their destination address while storing the departure addresses in a routing table the switching device comprising a memory buffer for momentarily storing messages being communicated over the ports (col. 4 line 20-40 or per col. 3 line 19-col. 6 line 14)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the routing table and memory of Egbert to the system of Bray because they are functions that are performed by switches which are well known in the art.

In Addition Bray teaches:

Regarding **Claim 2**, comprising an end station (ESD;ESH;ESL) having a first speed transceiver (T1) (It would have been obvious to one of ordinary skill in the art that Link partner or 50 per Fig 2 would have a 56 and 58 in order to communication with the switch of Fig 1 in order for the invention to work) over the respective first and second media sections (MSN, h, I) of an arbitrary media section group (MSG) of the infrastructure (10 M/bs or 100 M/bs per Fig 2) to the switch for instance, the first speed transceiver (T1) connected with a first speed port (I) of the switch if existing, and a second speed transceiver (T2) is connected with a second speed port (h) , if existing (Fig 2)

Regarding **Claim 3**, whereby the first transceiver is a 100 Base-TX transceiver and the second transceiver is a 1000 Base-CX transceiver and wherein the media section group consists of Cat 5,4 pair twisted cable (The reference teaches: 10 Mb/s and 100 Mb/s per Fig 2. The examiner takes official that use of CAT 4 and 5 is well know in the art for use with Ethernet per U.S. Patent No.: 6,704,296 B1 per col. 1 lines 20-35. Selection of a 1000 Base-CX transceiver is a design choice)

Regarding **Claim 5**, wherein the first media section (MSN, h) of a media section group (MSG) consists of media being different from the media of the second media section (MSN, I) in the same media section group (MSG) (10 M/bs or first media and 100 M/bs or second media per Fig 2)

Claim Rejections - 35 USC § 103

2.0 Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et. al. (U.S. Patent No.; 6,483,849)

Referring to Claim 6, Bray teaches: End station (ES) (50 per Fig 2 or end station) comprising:

Art Unit: 2661

A data terminal equipment (DTE) (The reference teaches work stations 26' per Fig 1. It would have been obvious to one of ordinary skill in the art at the time of the invention that the work stations 26' would have the interface shown in Fig 2 which is inserted into the data terminal or DTE in order for the invention to work) comprising at least one media access control unit for media access control (MAC) and signal conversion between high level protocol signals to reconciliation signals ;

A first transceiver (T1; T2) being coupled to the data terminal equipment (DTE) over a first interface (MII) (53 per Fig 2) the first transceiver being adapted to be coupled to media paths (MP), the first transceiver (T1) being capable of operating at a first speed (56 per Fig 2) being adapted to be coupled to media paths (MP), the first transceiver (T1) being capable of operating at a first speed (10 Mb/s per Fig 2 or first speed) characterized in that the end station (26' or end station per Fig 1') further more comprising a second transceiver (T1;T2) being coupled to the data terminal equipment and being adapted to be coupled to a second media section (58 per Fig 2 coupled to 100 Mb/s or second media section), offering media paths (MP) distinct from a first media section, the second transceiver (T1;T2) being capable of operating at a second speed (58 per Fig 2 operating at 100Mb/s or second speed)

The first and second transceiver (T1;T2) being adapted to convert signals from connector signals to physical media signaling on a respective media paths (MP) (signals converted from physical media signaling at 56 and 58 per Fig 2 and then adapted by MII or 53 per Fig 2)

Media selector (MS) for monitoring whether signals can be transmitted over the first transceiver (T1) or over the second transceiver (T2) (54 per Fig 2 or media selector), respectively , to opposing switch ports or transceivers and if signals can be transmitted over the second transceiver (T2) controlling the end station (ESD) to communicate over the second transceiver (T2) (54 per Fig 2) , and otherwise controlling the data terminal equipment (DTE) to communicate over the first transceiver (T1) (54 per fig 2)

A data terminal equipment (DTE) (The reference teaches work stations 26' per Fig 1. It would have been obvious to one of ordinary skill in the art at the time of the invention that the work stations 26' would have the interface shown in Fig 2 which is inserted into the data terminal or DTE in order for the invention to work) comprising at least one media access control unit for media access control (MAC) and signal conversion between high level protocol signals to reconciliation signals ;

Bray does not expressly call for: DTE in a end station but teaches a Switch with and adapter shown in Figs 1 & 2 which communicates with Workstation 26' per Fig 2.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the Ethernet functions of Fig 2 would also be performed by the Workstation of Fig 1 with the function of Fig 2 in order for the invention to work.

Claim Rejections - 35 USC § 112

3.0 The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.0 Claims 1-5 are rejected relative to 112/1st paragraph because the specification does not enable all of the limitations specified in the Claims.

Referring to **Claim 1**, the specification describes the “switching hub architecture on Pgs 5 line 27-Pg 6 line 10. The specification does not describe how the switch stores the departure addresses in a routing table or how the switching device comprises a memory buffer for momentarily storing messages being communicated over the ports. What is meant by “”while storing the departure addresses in a routing table, the switching device comprising a memory buffer for momentarily storing messages being communicated over the ports”?”

Referring to **Claim 4**, What is meant by “a magazine of Cat 5, 4”?”

In Addition:

Claims 2-5 are rejected because they depend upon **claim 1**.

Claim Rejections - 35 USC § 112

5.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.0 Claims **1-15** are rejected relative to 112/2st paragraph because the metes and bounds of the claims cannot be assessed.

Regarding **Claims 1-15** the applicant has abbreviations defined in parenthesis in the limitation. These abbreviations in many instances have two values or three values: For example (T1;T2) (IFR, IFR1, IFR2) in Claim 1 etc. The examiner recommends that all of the parenthesis and abbreviations be deleted from the claims.

Regarding **Claim 2**, What is meant by “and/or” on Pg 21 line 35; “arbitrary media section group” on Pgs 22 line 1; “if existing” on Pgs 22 lines 4 & 5.

Art Unit: 2661

Regarding **Claims 3 & 4**, What is meant by “Cat 5, 4”? Is it Cat 5 or is it Cat 4 or is it Cat 5 & Cat 4? Further more what is meant by a “magazine of Cat 5, 4”?

Regarding **Claim 6**, What is meant by “reconciliation signals”?

Regarding to **Claim 6**, What is meant by a “second media section” in light of the fact that a “first media section” was not previously defined?

Regarding **Claim 15**, what is meant by “invisible” to the MAC layer?

Abstract

7.0 The abstract is objected to by the examiner because it has a reference to a Fig which is a carryover from the foreign patent application and abbreviations in parenthesis. The examiner recommends deletion of the reference to the Figure as well as deletion of the abbreviations in parenthesis. Appropriate action is required.

Specification

8.0 **Pgs 19-20** are objected to in the specification because they are figures at the end of the specification with little or no explanation. The examiner recommends changing these pages to Figures as well as writing a reference to these figures in the specification without adding new matter. Appropriate action is required.

Conclusion

9.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is (703) 305-4102.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Art Unit: 2661

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson

Examiner

Art Unit 2661

RWW

May 7, 2004



DANIELSON
THIRD CLASS